ACROSS
Towards user journeys
for the delivery of cross-border services
ensuring data sovereignty

D2.3: Cross-border service gap analysis Initial

Project Reference No	959157 — ACROSS — H2020-SC6-GOVERNANCE-2018-2019-2020
Deliverable	D2.3:Cross-border service gap analysis – Initial
Work package	WP2: ACROSS New Governance Model
Nature	Report
Dissemination Level	Public
Date	31/01/2022
Status	Final
Editor(s)	Waag
Contributor(s)	VARAM, Dataport, GRNET
Reviewer(s)	Tecnalia, Lisbon Council
Document description	This gap analysis describes what is still missing to develop the transformative impact, potential and benefits of interoperable, single-sign-on, cross-border and user-centric digital public services that put European citizens and their sovereignty at the core. The gap analysis uses desk research and input gathering from use case partners who contribute from their expertise regarding the digital single gateway and other relevant EU standards. This report includes an analysis of the requirements needed to deploy interoperable, cross-border and user-centric public services, based on desktop research.

About

The project is co-funded by the European Commission's Horizon 2020 research and innovation framework programme. Spanning through three years, ACROSS consists of a consortium of 10 partners from 7 countries: Athens Technology Center (coordinator), Tecnalia, Dataport, Engineering, Fraunhofer, GRNET, TimeLex, The Lisbon Council, Waag and VARAM. The project kicked off its activities in February 2021, with an energising online meeting, where all partners took the floor to present their plans to make the project a great success.

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Document Revision History

Version	Date	Modifications Introduced	
		Modification Reason	Modified by
V0.1	22/10/2021	Collection of input	Dataport, VARAM, GRNET
V0.2	25/10/2021	Start of draft writing	Waag
V1	29/12/2021	Finalisation of full draft	Waag
V1.1	14/01/2022	Internal feedback on draft	Lisbon Council, Tecnalia, GRNET, Dataport, ATC
Final	31/01/2022	Final version	Waag

Executive Summary

The report (D2.1 "User Journey Methodology – Initial") presented the process of developing a user journey methodology. This report (D2.3 "Cross-border Service Gap Analysis – Initial") describes the collection, synthesis, and analysis of existing gaps in cross-border services. This analysis points towards next steps in ACROSS, described more fully in the subsequent deliverable D2.5 ("ACROSS Governance framework including service design approach – Initial").

Our analysis of existing gaps in cross border services began with an investigation of four European-wide cross border initiatives relevant to ACROSS: the Single Digital Gateway act, the Your Europe Portal, the European Student Card Initiative, and eIDAS. Next, gaps were gathered by the pilot partners in the three pilots: Latvia, Germany, and Greece. These gaps were identified through an inventory of public services (desk research) and interviews with projected end users. After the inventory of the services and the interviews were completed, the gaps were combined and compiled into a single, complete overview of the main gaps. This was done in a virtual co-creation session with all the participating partners of Task 2.2.

The initial gaps gathered by pilot partners indicated that *fragmentation* and *lack of completeness* are major gaps. When compiling these gaps during a subsequent co-creation session, project partners supported this initial finding, noting that the main gaps involved *lacking or incomplete technical infrastructure* and *issues related to authentication, personal data, and digital identity*.

Finally, the gaps identified in this report were considered in relation to both the citizen (end user) and the ACROSS project. Chapter 5 presents these gaps in relation to the core problem of a lack of citizen control. *(De)centralisation*, *privacy*, *exclusion of people at the margins*, and *usability and technical completeness* are all areas where gaps exist which diminish citizen control. The implication of this analysis is that ACROSS can address these core areas of citizen control by developing a more complete user journey workflow, and by demonstrating a more decentralised and user-centric approach to personal data sharing ACROSS European borders.

In conclusion, our analysis of gaps in cross border services indicates that citizen control (over personal data and digital identity when moving across borders) is an area where ACROSS can specialise and contribute. The implication of this is taken up in the subsequent deliverable, D2.5 ("ACROSS Governance framework including service design approach – Initial"): We can address the major gaps in cross border services by approaching ACROSS as an experiment in radical decentralisation of personal data storage and data management at a supranational (EU) level. Under this approach, information about and resources for moving across borders should be more centralised, while personal data and digital identity ought to be radically decentralised addressing specific requirements of user-centeredness, transparency, standardisation and interoperability.

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List of Terms and Abbreviations

Abbreviation/Term	Definition
Cross-border services	Cross-border services are the services that help people move between countries. In the ACROSS project, the cross-border services help EU residents move from one EU country to another EU country for work or study purposes. For example, one can think about services that help with locating job opportunities, finding accommodation or opening bank accounts.
EC	European Commission
EU	European Union
eIDAS	"The Regulation on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation) aims to create a predictable regulatory environment. The eIDAS Regulation helps business, citizens and public authorities carry out secure and seamless electronic interactions."[1]
eID	"eID is a set of services provided by the European Commission to enable the mutual recognition of national electronic identification schemes (eID) across borders. It allows European citizens to use their national eIDs when accessing online services from other European countries."[2]
eDelivery	"eDelivery is a building block that provides technical specifications and standards, installable software and ancillary services to allow projects to create a network of nodes for secure digital data exchange. By building with eDelivery, public and private organisations from different sectors can easily create a safe and

[1] https://digital-strategy.ec.europa.eu/en/policies/eidas-regulation
[2] https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eID

Abbreviation/Term	Definition
	interoperable channel to transfer documents and data among each other over a public or private network."[3]
IMI	IMI stands for Internal Market Information System. "Under EU single market laws, people and businesses have certain rights to move around the European Economic Area for work, study, trade, etc. The IMI enables you to do this."[4]
OOP	OOP stands for the Once-only principle. From 2023, the Once-Only Principle will allow public administrations in Europe to reuse, or share, data and documents that people have already supplied, in a transparent and secure way (europa.eu).
Pilot partners	These are the partners of the ACROSS project that provide information, conduct research, and organise co-creation workshops, among other activities, in the pilot countries. The pilot partners are Dataport, GRNET, and VARAM in respectively Germany, Greece, and Latvia.
SDGR	Single Digital Gateway Regulation (No 2018/1724) is an EU regulation that requires EU member states to ensure that the administrative procedures they provide online can be accessed and processed across EU borders, online and always. The SDG regulation also calls for EU-wide non-discriminatory access to the procedures provided online by the Member States.[5]
TESTA network	"The TESTA network service – which stands for Trans European Services for Telematics between Administrations – provides a European backbone network for data exchange between a wide variety of public administrations."[6]

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[3] https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eDelivery
[4] https://ec.europa.eu/internal_market/imi-net/index_en.htm
[5] https://ec.europa.eu/growth/single-market/single-digital-gateway_en
[6] https://ec.europa.eu/isa2/solutions/testa_en

1   Introduction

This report builds upon research into the journey and experiences of the potential end-users of the ACROSS platform (see D2.1 "User Journey Methodology definition – Initial"), through which several issues and pain points concerning the available cross-border services came to the surface. This report (D2.2) delves deeper into the gaps in the existing European cross-border services and analyses the main issues that the ACROSS project may attempt to resolve in response.

The participating partners in Task 2.2 are Waag (lead), ATC, ENG, Dataport, GRNET, TimeLex, and VARAM. Together, the partners have analysed via a gap analysis what is still missing to develop the transformative impact, potential and benefits of interoperable, single-sign-on, cross-border and user-centric digital public services that put European citizens and their sovereignty at the core. This report is the result of desk research (presented in sections 2 and 3.1), interviews with the projected end-users in Germany, Greece, and Latvia, respectively (section 3.2), and consolidation and analysis of findings (chapters 4 and 5). Our analysis reveals a major gap in citizen control over the process of moving oneself across borders, manifested through gaps related to centralisation, privacy, exclusion, and incomplete technical infrastructure.

Task T2.3 "Co-creation of the ACROSS Governance Framework" will build on the knowledge gathered. The final version of the gap analysis (D2.4 "Gap analysis of cross-border services – Final") will be delivered in M18. For more information on the methodology of the user journey research, please refer to D2.1 ("User Journey Methodology definition – Initial"). For the complete landscape on the situation in the three use case countries, please refer to D6.1 ("Use Case Scenarios and Roadmap").

2 Investigation of existing European cross border initiatives

This chapter presents the findings of desk research into existing European-wide cross-border initiatives to create an overview of the digital landscape in which the proposed ACROSS platform fits. This includes the Single Digital Gateway, Your Europe Portal, the European Student Card Initiative, and eIDAS. They were selected because of their relevance to themes researched in ACROSS involving cross border (European) data sharing: The Single Digital Gateway and eIDAS set certain standards for cross border digital services, while the Your Europe Portal and European Student Card Initiative are examples of how such standards are technically approached.

2.1 The Single Digital Gateway

The Single Digital Gateway (SDG) act will result in one central European gateway to information and procedures for European citizens. This is in line with the once-only principle (OOP) which is the idea that citizens and businesses should be able to digitally enter their data only once on European governmental platforms. This would facilitate communication between the different local and national governments and ease the bureaucratic processes and procedures that citizens and businesses have to go through when dealing with international business. The Your Europe Portal[7] will be used as the gateway, which would include one common user interface. This interface must be user-friendly and available in all official EU languages. The next section goes deeper into this portal and its advantages and disadvantages.

Different EU countries have different approaches for complying with the Single Digital Gateway act. For example, the Dutch approach places three aspects of the SDG at the centre. These are the information regarding rights and obligations as a Dutch and EU citizen, the access to online procedures, and the once-only principle. The information regarding your rights and obligations as citizens according to EU and national legislation is one of the minimum requirements of the SDG act. There are several conditions that determine the successful presentation of the necessary information; the information must be available in at least Dutch and English, the platform must be user-friendly, up-to-date, accurate, complete, easy to understand, clearly structured and presentable. The national governments in the EU had until December 2020 to comply with this requirement; local governments have until December 2022 to make the necessary adjustments.

The next aspect regards access to online procedures. Twenty-one specific procedures have been identified that must be fully supported on the platform. This means that all EU citizens and companies must be able to successfully walk through these procedures online, regardless of their nationality. Example procedures are requesting a birth certificate and registering a change of

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[7] https://europa.eu/youreurope/index.htm

address. The governments have until December 2023 to create the appropriate systems and the relevant support for their users' questions and problems.

Finally, as mentioned before, **the once-only principle determines that citizens only need to provide a certain document once and that it can be shared between different national and local governments**. This poses a development challenge for projects like ACROSS: How to create cross-border compatibility without relying upon a centralised architecture? The Netherlands, specifically, is against a centrally governed IT system and would rather use the existing building blocks – such as the TESTA network, eDelivery, eIDAS, IMI – to set up a **decentralised architecture**. The governments also have until December 2023 to set up this once-only principle, as it goes hand-in-hand with the aforementioned procedures.

2.2   Your Europe Portal

As mentioned in the previous section, the Your Europe Portal will be used as the gateway for the Single Digital Gateway act. The platform exists in the basic form of what it is projected to be. It currently merely focuses on the provision of *public* services; while many private EU companies offer cross-border services, they are not included in this platform. However, this is the prevailing approach as most national platforms – such as the recently launched Gov.gr – focus on the inclusion of public services. The inclusion of private services is a goal that many of these platforms have for the future, but not where the priority lies. The same holds for the ACROSS project; while the inventory of available cross-border services covered both public and private services, the project itself will focus on the public services due to feasibility constraints.

The services that are currently included in the Your Europe Portal are relatively limited. The portal *does* offer information on moving abroad for work purposes, but the included services do not cover all the steps in the user journey as created in D2.1 ("User Journey Methodology definition – Initial") and D6.1 ("User Case Scenarios and Roadmap"). For example, for working abroad, the support ranges from an overview of job opportunities per country to obtaining family benefits and information on taxes. However, there is no information on how to open a bank account or find housing. Moreover, the user journeys of students – think of finding a suitable university or student housing – are completely missing in the Your Europe Portal.

2.3   European Student Card Initiative

Whereas the Your Europe Portal is solely focused on the professional domain, the European Student Card initiative[8] focuses on the electronic identification of students. It allows students within the EU to electronically identify and register themselves at international universities and

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[8] https://ec.europa.eu/education/education-in-the-eu/european-student-card-initiative_en

colleges, without having to apply for university-specific student cards. This eliminates much of the onsite paperwork and eases the registration procedures. As such, it is an instance of the eIDAS regulation, which is described in the next section.

Moreover, the European Student Card Initiative aims to develop a platform that will facilitate the administrative steps the students need to take before, during and after their move time abroad. It aims to offer all the information international students might need, and could potentially cover the full user journey for students (see D2.1 "User Journey Methodology definition – Initial"). However, the platform is not yet fully functional and does not currently offer these services.

2.4   eIDAS

The last European-wide cross-border service that will be discussed here is the eIDAS regulation[9], which stands for electronic Identification, Authentication and Trust Services. It has been in place since 2018, and it entails that public and private organisations that have a public function are obliged to accept European accepted authentication tools within digital service delivery. It "ensures that people and businesses can use their own national electronic identification schemes (eIDs) to access public services available online in other EU countries" (European Commision).[10] It forms the basis for cross-border electronic identification, authentication and website certification within the EU.

This service is different from the Your Europe Portal or the proposed ACROSS platform as it is not a platform in itself that helps EU citizens with their move to another EU country. Instead, it facilitates the interoperability between electronic transactions on different online platforms. The goal is to make all key public services available online by 2030, this includes digital access to medical records. However, this goal only makes sense if a sufficient number of citizens utilize their electronic identification to make use of the services. As such, the EC has set the goal that 80% of the citizens should (know how to) make use of electronic identification solutions by 2030 (European Commision).[11]

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[9] https://digital-strategy.ec.europa.eu/en/policies/eidas-regulation

[10] Idem

[11] https://digital-strategy.ec.europa.eu/en/policies/electronic-identification

3 Identification of gaps per pilot

This chapter presents gaps identified by the use case partners in the three pilots: Germany, Greece, and Latvia. Section 3.1 presents the gaps visible in the inventory of public services. Section 3.2 presents the gaps identified during interviews with prospective end-users. For more information on the methodology of the user journey research, please refer to D2.1 ("User Journey Methodology definition – Initial"). For more information regarding the three use case countries and use case scenarios, please refer to D6.1 ("Use Case Scenarios and Roadmap").

3.1 Inventory of public services

Pilot partners each conducted desk research into the cross-border services offered in their own countries. This process began with a process to find and catalogue cross border services available in each country (for inventory, see Appendix 1). Partners then considered these existing services in terms of their readiness and capacity to be integrated into the ACROSS user journey. These considerations are presented in the following subchapters. In general, and across the pilots, this research points largely to *fragmentation* and *lack of technical readiness and interoperability maturity* as major gaps in national cross border services – certain services exist and may be integrated; other services exist but are not ready or unsuited for interaction with each other; and other services that are necessary for a complete user journey do not exist altogether.

3.1.1 German pilot

The Dataport ACROSS team developed the idea of categorising the different types of services that can be potentially integrated in ACROSS. These are presented in the "traffic light" flowcharts in figure I and II. The two flowcharts can be understood as the result of the analysis of all officially relevant private and public services in Germany. The flowcharts for working and studying abroad show on which level the mentioned services could be integrated to a user-friendly ACROSS platform.

The red blocks represent the services for which the platform would merely provide information, rather than technical support. The yellow blocks represent the services for which the platform would provide links to external websites that offer sufficient technical support for the services. Finally, the green blocks represent the services that can be technically integrated into the ACROSS platform. These services would be supported to the largest extend.
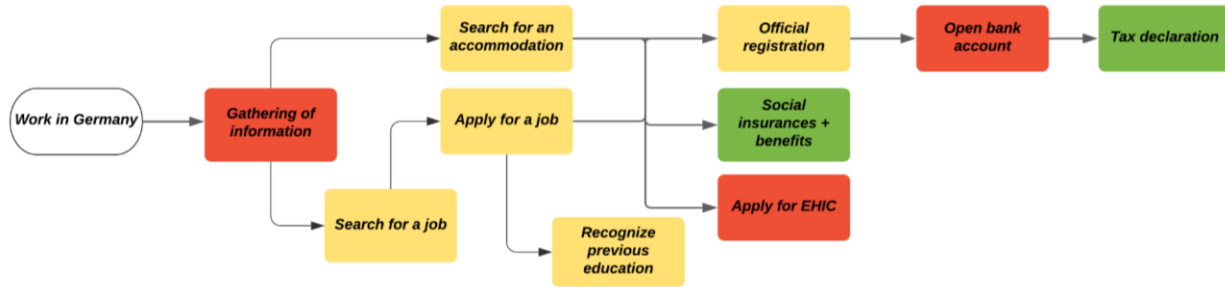
Figure I: Flowchart – working in Germany
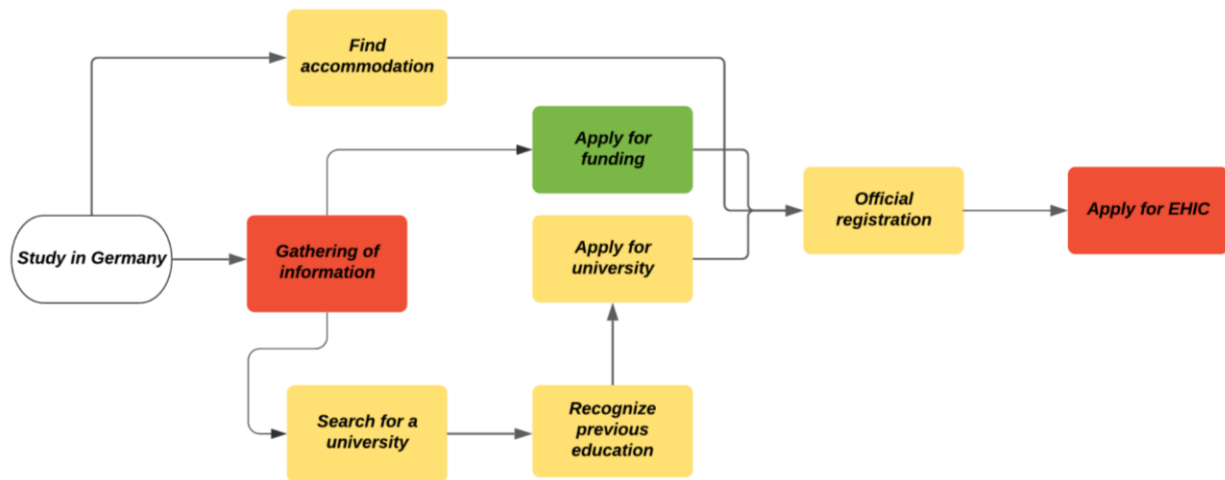
Figure II: Flowchart – studying in Germany

The main gap for German services is the lack of eIDAS implementation (yet). Furthermore, only a few services in Germany show SDG readiness, although the law requires its execution until the end of 2023. Due to the federalism in Germany and the large number of stakeholders, it is not consistently clear what the current development status of online services is. Federalism also produces a decentralised infrastructure. However, the administration foresees that by the end of 2023, the most important SDG online services will reach the required level of maturity – driven by the Single Digital Gateway regulation from and its annex II.[12] Today, we are still struggling with the language gap. Only a few services are also available in English and can be used seamlessly. Another gap is the lack of communication between the authorities. The exchange of information is not completely free of media discontinuities.

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[12] EUR-Lex - 32018R1724 - EN - EUR-Lex (europa.eu)

3.1.2   Greek pilot

In Greece there is a major reform lately on the digital services that are offered to the public. While there is a long way to go on digitizing and simplifying processes, thousands of services are offered online mostly via a single gateway, gov.gr. Alternatively, some in-person services are offered via video-calls or to specific Citizen Service Centres all over Greece.

The main credentials to login to any online system are the ones provided by the tax authorities to every Greek citizen or anyone required to submit a tax declaration and are called Taxisnet credentials.[13] Any citizen can apply online for a VAT number and Taxisnet credentials and get them after an arranged video-call with the authorities. This number is also required to open a bank account. Another important number for a citizen in Greece is AMKA, the health insurance number. It can be issued with an in-person visit to specific service points. It can also be substituted for a period of time by the European Health Insurance Card number. Students can also get online credentials and an Academic ID from their institutions in Greece with which they have access to books and many other public and private sector services.

The main gap for people moving to or from Greece is that there is no central place to find all the information they need. They have specific needs, known beforehand, and the ACROSS objective should be a central place providing updated, not contradicting information, in "human language". It is important to provide a checklist of required steps to follow (digital or in-person), based on User Journey templates (including obligations to the country that they depart). The main portal of the Greek government, gov.gr, must transit from platform to ecosystem and gather information by single points for truth (once-only principle in data maintenance). Its interoperability with systems from other countries (personal data, documents/ certificates, degrees, pension rights) will further simplify processes and requirements for moving citizens. It should also provide better monitoring and access control to the citizens whose personal data are processed. There can also be noticed a gap in the services provided to the citizens who do not want to get a Greek VAT number, perhaps because their move is for a short period of time such as students.

A second gap in the services is the language barrier since most services are offered in Greek. Documents, forms and templates need to be available in different languages.

Erasmus students also face a gap in services from finding and applying to eligible universities to signing their Learning Agreement contracts. The whole process is not supported by a unified portal. Each university treats it differently, usually with a professor and an office that provide information and help to some extent. A lot of emails and scanned documents are usually exchanged.

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[13] https://www1.gsis.gr/taxisnet/mytaxisnet

Some relevant services already offered in Greece to those who have Taxinet credentials are:
- Income tax declaration
- Lease notification
- Certificate of permanent residence of a citizen of an EU Member State
- Insurance CV
- Job search
- Unemployment benefit application
- European Health Insurance Card (EHIC)
- Solemn declarations/ authorizations
- Kindergarten registration
- EU Covid certificate
- MyConsulLive
- Know Your Customer (banks)

The following services are under development:
- Starting a sole proprietorship (freelancers)
- Exams for public administration vacancies
- Health services (prescription execution, patient summary)
- Notarization for real estate transactions
- School registration

For students the following services are offered online:
- Academic ID
- Eudoxus – academic books
- School diploma
- Certificate of university studies (myKEPlive)
- University transcript (myKEPlive)
- DOATAP - diploma recognition and equivalence
- Scholarship application
- Housing benefit application
- Issue an European Health Insurance Card (EHIC)

and these are under development:
- eDiplomas
- University registration
- Housing benefit application
- Health services (prescription execution, patient summary)
- Everyday services (opening bank account, mobility, telecommunication etc.)

3.1.3   Latvian pilot

There are a significant number of services that are currently digitally available for moving to and from Latvia; Appendix 1, section 7.3 provides an overview of these services. The main gap limiting the access these digital services in Latvia is the lack of connection to eIDAS: none of the services intended for the use case currently support eIDAS. The users must obtain identification in Latvia to proceed with the digital services. It is not possible without a physical visit to the Office of Citizenship and Migration, and there is no digital identity matching. Once the national identification credentials are obtained the users should not experience any accessibility problems with the identified digital services. However, most of the services fall under the SDG Regulation which means that eventually they will be adjusted for cross-border authentication. The services have different owners and platforms of accessibility which require broader stakeholder management. Within WP2, we will be organising co-creation session with the prospective end-users, this is an opportunity to further investigate what this broader stakeholder management would entail. The actual involvement of stakeholders and the production environments of the existing services may not be met with equal enthusiasm, thus, connecting the testing environments with eIDAS could be a good alternative.

Similar to Dataport, VARAM also categorised the different services on the basis to which extend the services would be supported on the ACROSS platform. This is to map and classify the steps in the user journey the end-users have to go through. This classification helps to clarify to the internal and external parties where the priority of the ACROSS project lies. The green services depict what should be supported in the ACROSS platform, yellow services would to be linked to and provided information for, and red represents what will merely be mentioned or should not be included altogether. This categorisation can be found in the following "traffic light" flowcharts:
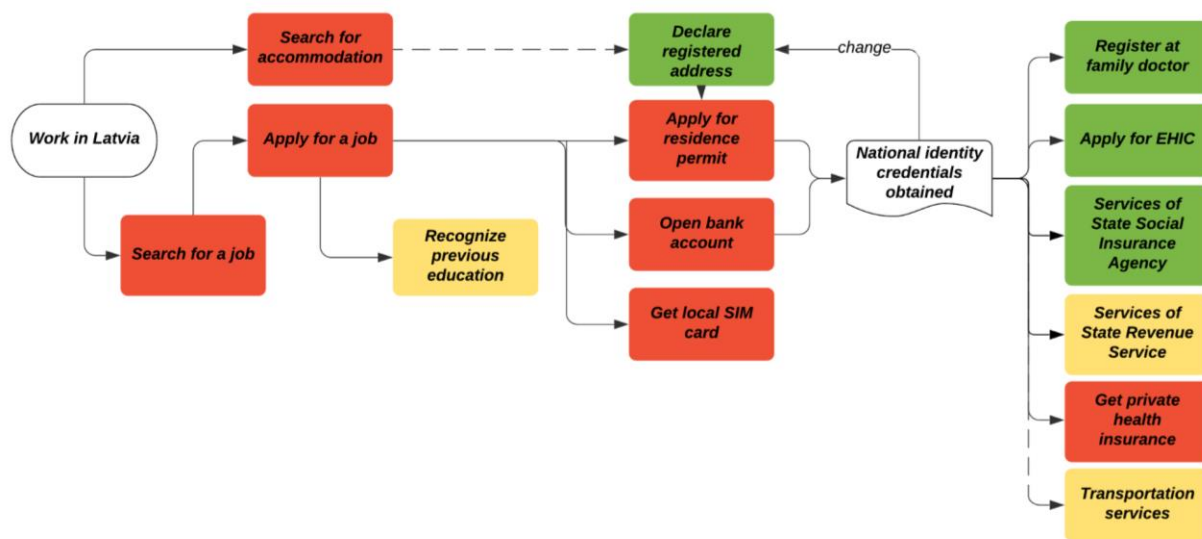
Figure III: Flowchart – working in Latvia
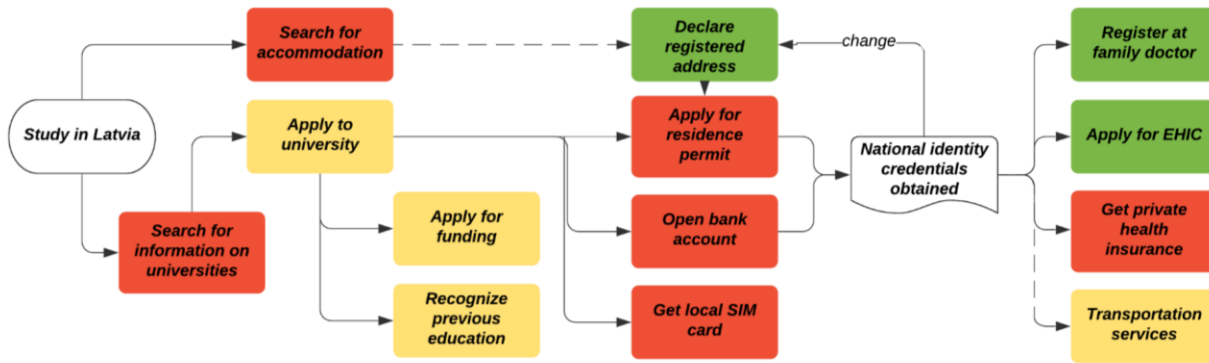
Figure IV: Flowchart – studying in Latvia

3.2 Gap analysis from the interviews

Following the creation and analysis of the inventories of existing services (presented above in 3.1), pilot partners then looked to interviews with prospective end-users as a source for input and validation regarding gaps in cross-border services. This provided a different lens for approaching gaps which emphasises the 'user perspective'– that is to say, it provided insights into the real challenges faced by real people in real life. The findings here confirm the issues of *fragmentation and incompleteness* mentioned above and add insight into the frustration and lack of agency experienced by people as they encounter various manifestations of this core issue.

3.2.1 German pilot

Dataport conducted thirteen interviews concerning working and studying abroad. The goal of the interviews was to get an overview of which processes are officially required and most important when moving to a European country.

Figure V: Most important German services – work abroad
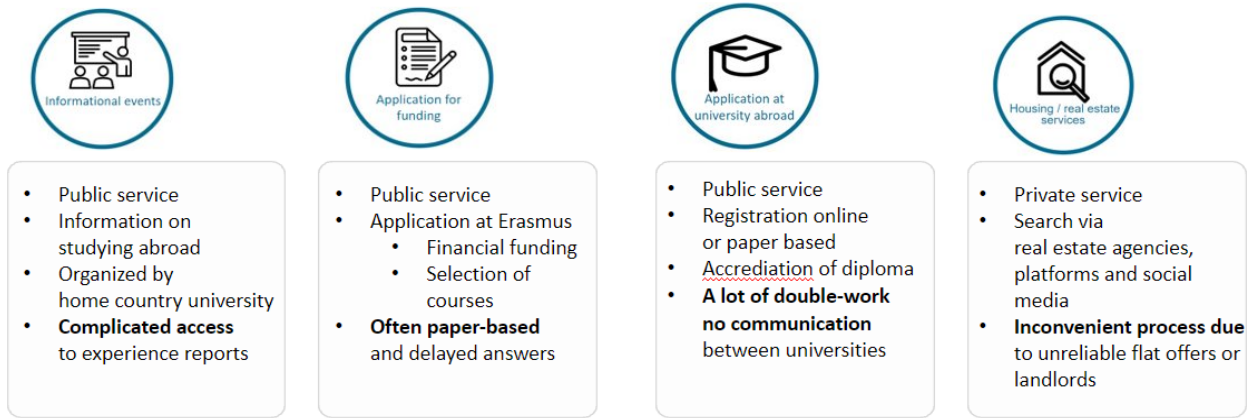
Figure VI: Most important German services – study abroad

Desires & ideas

- All required processes **should be possible online and in advance.**
- A **Checklist** concerning missing requirements/documents should be provided.
- **One user-friendly platform** for the whole process linked to national ID (eID).
- More **cooperation** and **communication** between home country authorities/universities and foreign country authorities/universities.

Table I: German gap analysis, based on interviews

Gap	Related statements from interviews
Interconnection between authorities	Communication between universities can be better. No "double uploading", the submission of university application documents to both universities (home country and abroad) should be needed anymore. "More cooperation and communication between universities concerning requirements and accreditation."
Checklist with necessary steps	Checklist with a description of missing requirements should be provided. Also, experience reports from former workers/students.
Too many 'media breaks'	"Many paper-based processes and required on-site visits at local authorities." First online, then offline; first private housing market, then public registration.
Central overview	Platform with one single point of access for all documents. "An overview of all required, submitted and missing documents on a central platform," that displays data, the

Gap	Related statements from interviews
	status of forms & ongoing submissions. Connected with private services (housing, bank account)
No possibility to login in a user-friendly way	One user-friendly portal for the whole process linked to national ID (eID).

3.2.2   Greek pilot

For the Greek Use Case ten interviews were conducted during July 2021, with people who had recently moved to another EU country. Half of them had moved for studies and the rest for work. Two of them had moved twice, at first for studies and later for work. All of them were Greeks who had moved from Greece to another EU country, with the exception of one Cypriot. For our analysis, we took into account the two different purposes of the moving and our main findings refer separately to work-related and study-related moving. All of them expressed the need of a central point of reference for the tasks they need to do in order to meet their obligations and cover their needs. Most satisfied were the ones who were provided with a checklist of these tasks either by their university/employer or by friends and groups.

Apart from guidance, some people expressed the need for help by someone when they were confused or faced a problem. Impersonal platforms or authorities make people feel frustrated, so they need somewhere to attend to in cases of trouble. Another important issue was the digitization of the processes. The need for in-person visits to local authorities to submit paperwork was considered negatively by the interviewees. So, tasks that could be accomplished online without any physical presence are definitely preferred. They can also be finished in advance, before the moving of the person.

A notable pain point for a lot of interviewees was the language barrier when they moved to countries where they didn't speak the local language well, if not at all. Sometimes, people had to sign forms and contracts they didn't fully understand. A relevant problem was reported with the translation and validation of certificates. In Greece, these processes are not digitized yet and they were a pain point for many people. People who move with their family also need assistance for relevant tasks such as the registration of their children to a school or finding a job for their spouse etc. Finally, for the digitized processes, people are aware of their rights regarding data protection and privacy and they express their demand for consent, if possible, when their personal data are shared and also all the rights they have about them afterwards. The same issues hold both ways. There are tasks that should be done to the departing country before the moving and also after they return. So, people need clear guidance in one place from their home country, too.

To sum up, people who knew what to do and could do it securely online were the most satisfied. A characteristic example was a student from a private Greek high school who went for undergraduate studies to a private university in England with the International Baccalaureate Programme. He had guidance from high school on how to find universities and apply to them in a single portal. He also had guidance and support from the university for the moving and almost all of the tasks relevant to the authorities were offered online via a single portal.

In order of importance, the main tasks that the interviewees reported to us were the following:
1. Housing - Finding a house in many cities of the European Countries, although vital, is a difficult task. The private sector is mainly involved with house owners or agencies etc asking for proofs of credibility (i.e., bank accounts) that are sometimes time-consuming and cannot be completed in advance, before moving to the new country.
2. Health Insurance - Registering to local health services, getting vaccinated for COVID, etc
3. Registrations at local authorities - These issues include also the deregistration to the authorities of the country of departure.
   a. Registration at local authorities for the place of living
   b. Taxes
   c. Social benefits
   d. Army obligations
4. Bank account - Opening a Bank account requires a permanent residence while sometimes getting a residence requires a bank account, so temporary solutions were provided and this caused a delay to the moving process.
5. Translation of needed documents.

Some other less important tasks involve the acquisition of public transportation tickets, the registration of private cars, the recognition of professional and private certificates (work & academic qualifications, marriage certificate), information on local language course opportunities, local life, rents, costs of living.

3.2.3 Latvian pilot

Table II: Latvian gap analysis, based on interviews

Identified gaps	Description
No transfer of identity credentials	As it is typical, there is no opportunity to transfer identity credentials from home country to host country without visiting the migration office and showing physical proof of identity, and eventually obtaining national identity solutions. Information sharing between EU countries still has gaps, as a person may be counted as a resident of two countries (e.g., the person

Identified gaps	Description
	received vaccine services in Latvia but still was counted as unvaccinated in German statistics).
Language gap	Besides Latvian, digital services in Latvia are usually available also in English and Russian. Procedures requiring face-to-face (or phone) interactions may turn out pointless if the officer is not proficient in a foreign language (typically English).
Technical infrastructure	Overall digital services in Latvia work well; however, users sometimes encounter outages due to technical problems with the service or failure of identity credentials. Usually, they are fixed fast, but it sometimes causes problems in critical situations (access to medication through e-prescription, access to vaccination etc.).
Human errors	Misinterpreted or unread emails, miscommunication etc. In some cases, racism and xenophobia are risks, especially dealing with services in the private market. More digital solutions can tackle or reduce that.
Information on services and their execution	Digital solutions allow users to assess all steps and documents needed to execute services, reducing the possibility of do-overs. However, service descriptions may be very technical and hard to comprehend. No universal *"Welcome to Latvia" portal*.
Accessibility	Limited access for people with impairments of senses and mental impairments.
Partly digital	Some services are positioned as digital, however, may include steps of face-to-face interactions which

4   Synthesis and prioritisation of gaps

The previous chapter outlined the main gaps that the pilot partners identified in their respective countries. These gaps were found during the research into the studying and working abroad journeys of the potential end-users. It soon became clear that there were certain gaps that were felt by all users in the three pilots and some gaps that were more of a niche experience. Therefore, a hierarchy of the gaps could be made. During a virtual co-creation session in October 2021, the ACROSS partners came together to create a complete list of the identified shared gaps, including a ranking on which issues were most pressing and should be at the centre of the ACROSS project.

The first step was creating an overview of the most important gaps from the interviews as well as the inventory of services. This was done by asking what the pilot partners identified as the most important gaps in their own countries. One by one, they listed the gaps that they distilled from their research. This way, we made a list of gaps that everyone agreed on as complete.

During the second step, the attending partners were asked to vote for two of the gaps that they felt were most important to the cause and to explain why that gap should be addressed by the ACROSS platform and project. The votes were then added and compiled into a ranking list. The gaps and their respective ranking can be found in Table III below.

Table III: Ranking of the gaps

Gap	Ranking (0: lowest, 5: highest)
Technical infrastructure is lacking or incomplete.	5
Identity Management gaps - no central login to private and public	4
Consent to share personal data/provision of rights and options regarding personal data/ID mgmt. Includes an overview of who has data, where it goes, how it may be used	4
Language barrier	3
Information on services and their execution is lacking (no central checklist or overview. No updates on progress/status)	3
Bureaucratic obstacles - Difficulties with certification transferring documents	3
No transfer of identity credentials	2
Authorities do not speak to each other (fragmentation)	1
Lacking recognition of credits - learning agreements between EU countries	1
User friendliness - lack of support from personnel	1
Limited Accessibility	1
Different rules and platforms apply ACROSS countries	0

Gap	Ranking (0: lowest, 5: highest)
Human errors	0
Media break' - moving from digital to physical offices. Different tasks competing and confusing with one another	0
No clear place for best practices, user experiences, stories from others.	0

The gap that was considered most important is "technical infrastructure is lacking or incomplete." While the different countries offer a number of cross-border services, these are often difficult to find and to interact with and must be completed partially or completely on paper and in person. To make the switch to user-friendly digital cross-border services that offer the complete set of services someone might need, an effective technical infrastructure needs to be built. This gap can essentially be split up into two aspects: the machine-to-machine gap and the machine-to-user gap.

The machine-to-machine gap refers to how machines and services must be built in an open and interoperable way, such that the machines and services can interact to share and protect the user's personal data. The ACROSS infrastructure must allow for accessible and interoperable services, meaning that the services cannot use traditional lock-in methods. These methods keep a user tied to a certain platform and do not allow for data sharing between platforms. Essentially, there are five parts of the technical infrastructure that need to be addressed: the protocols, APIs, datasets, the naming of services, and central data exchange tools. If these five factors are created in an open and interoperable way, the ACROSS platform would fill the gap of the lacking technical infrastructure.

The machine-to-user gap describes how the user is often left out of the equation when building such platforms. The ACROSS platform must place the user in the centre of the service design process and give them the power over their data. Moreover, the platform must be user-friendly and address the issues the users actually face. This does not only cover the issues that *most* users face but especially also the issues that the marginalized users face. For example, refugees might be keen to move abroad for studies or work, but a lack of legal documentation can stand in the way. A complete technical infrastructure should address the issues of *all* the users.

5   Gap Analysis

5.1   Citizen control: The Main Gap

As mentioned above, it is crucial to 'place the user [citizen] in the centre of the service design process.' To do this, we can consider these various gaps in terms of how they affect people in real life. Simply put, people do not feel they are in control while moving across borders. They do not feel certain of which steps to take, or that they are doing things correctly/in the right order. They do not feel in control of who they share information with, or what is done with their data. They do not feel in control over whether processes – like applying for housing or registering in a new country – will be successful. Moving across borders makes people vulnerable; those who are already vulnerable (perhaps due to a low income or unclear residential status, for example) are made even more vulnerable. In this chapter, we consider how the various gaps or 'sub-gaps' that we have identified contribute to this core problem of citizen control.

5.1.1   (De)centralisation

'I find it more convenient to have one single point of access (linked accounts, one single log-in)'
-European citizen during ACROSS interview

Certain aspects of cross-border movement are too centralised, while other aspects are not centralised enough. Issues involving (de)centralisation which are detrimental to citizen control include:

- **Dissimilarity of services and requirements per EU country** – Citizens encounter different requirements between their home country and destination country. From the perspective of a developer of cross border services, this poses inter-operational challenges and multiplies the considerations for any cross-border service positioned at the European level. From the perspective of those moving ACROSS borders, this poses immediate practical challenges in knowing what is required and obtaining correct forms of documentation.
- **No clear central 'checklist' or workflow for moving across borders** – People who move across borders often do not know which steps to take, or in which order. Requirements are often fragmented. Checklists provided by private websites and other non-governmental resources may not provide certainty about the process (for example, that all requirements are present, or that advertising or other forms of bias may be at play). **Sometimes, a mix of public and private services are required or perceived as required**, resulting in a messy process, over-exposure of personal data, and a lack of transparency in how data is processed (see Data Minimisation and Increased Points of Exposure below).

- **Authentication** – Authentication issues are encountered by citizens because there is no single point to 'sign in' (for example, one cannot use the Dutch DigiD to login to a German government website). Where authentication does occur, it is often unclear to people what control they have over that authentication and the extent to which their personal identifying information is held. This presents a design question of how to build something that is both a single point of sign-on *and* decentralised.
- **Centrally held personal data** – Centrally held personal data, by private parties and governments alike, is problematic in that it causes people to lose control over their personal data and digital identity. To the extent possible, personal data should be stored and controlled locally by individuals themselves, who ought to have more granular control over their own digital identity.

Technical development in ACROSS requires careful, balanced consideration of what is centralised, what is decentralised, in which case and with which potential consequences. Generally speaking, **information about and resources for moving across borders should be more centralised,** while **personal data and digital identity ought to be radically decentralised addressing specific requirements of user-centeredness, transparency, standardisation and interoperability.** This conclusion raised again below in Chapter 5.2 'Implications' and is elaborated in further detail in D2.5 ("ACROSS Governance framework including service design approach – Initial").

5.1.2   Privacy

'Data Governance should include an active decision to know what you release your data for so that you can control who uses your data.'

'A transparent data cockpit would be nice if you can see who has accessed your data, to whom you sent your data, and such.'

– European citizens during ACROSS interviews

The issue of privacy is closely related to the discussion above regarding decentralisation of digital identity and personal data. People who move ACROSS borders are unduly exposed to a number of hidden actors, both public and private, throughout the course of their journey. Important gaps in privacy involve:

- **Data minimisation:** The European Union values data minimisation[14] but in practice data is generally not minimised when moving ACROSS EU borders. As mentioned above,

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[14] Article 5(1)(c) of the GDPR and Article 4(1)(c) of Regulation (EU) 2018/1725: Handling of personal data is required to be "adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed". (Accessed through https://edps.europa.eu/data-protection/data-protection/glossary/d_en)

people may have data requested from an array of public and private parties. Often, much more data is requested than is strictly necessary (for example, confirming previous residency in another country by providing a specific street address, or confirming one's ability to rent an apartment by providing a bank statement).

- **Informed about use of data:** People moving ACROSS borders often do not have knowledge of who has their data, how that data is being used, with whom it is being shared, how long it is held, and so on. Uninformed about the status of their own data, people lose the ability to properly consent to how that data is held and used.
- **Consent and identity management:** People moving ACROSS borders may feel forced into sharing certain information with certain parties (consider the example above of sharing a bank statement with a landlord). Also related to data minimisation, people may need to consent to provide more information about themselves than is necessary for a given situation. All of this deteriorates the control that people have in managing and protecting their own identities.

5.1.3   Exclusion of people at the margins

As is too often the case, people with existing disadvantages face exacerbated obstacles when moving ACROSS European borders or planning to do so. For these people, the problems and complications that everyone faces when moving ACROSS European borders are even harder. We can consider some of the challenges people face in terms of exclusion and increased points of exposure:

- **Exclusion:** Even in ACROSS, we encounter the problem that those with unique circumstances can be difficult to account for. Because including them is complicated, people who have special circumstances are often excluded from consideration.
- **Increased Points of Exposure:** There are many 'points of exposure' during the process of moving. For someone with limited mobility, physically moving ACROSS a border is difficult. People without housing in their home country may be unable to provide required documents in their new country. People with low or even median incomes may struggle to fulfil requirements like finding an apartment in a new city. Immigrants and others without EU citizenship may fear (real or perceived) consequences and choose to not move ACROSS borders at all.

5.1.4   Usability and Technical completeness

'An overview of all of my data would be great... with an overview of the process's status'
— European citizen during an ACROSS interview

Moving across borders is not a user-friendly process. Difficulties with technical interoperability and usability, such as interface specifications, interconnection services, data integration services, data presentation and exchange, syntactic and semantic definitions,[15] can have negative real-life consequences in slowing or stopping people from moving across borders. Areas with gaps in this regard include:

- **Insufficient or Incomplete Technical infrastructure and interoperability:** Gaps in technical capabilities of the ICT solutions, affect the behavioural aspects and effectiveness of their interaction with their end-users (citizens, PAs, businesses) or other client services. causing delays and roadblocks for people moving across borders. For example, many forms of documentation exchange and request cannot be facilitated online.
- **Language and bureaucratic gaps:** Slow and opaque bureaucratic processes can leave people waiting for confirmation from an authority before a next step can take place. They may be uninformed about the status and expected waiting time for their documents to be produced, processed, or confirmed. At times, destination countries will request pieces of information that do not exist in the country of origin (such as proof that one has never been married), or will have issues in processing certain documentation due to issues in translating languages and/or bureaucratic processes from one country to another.

- **Systems' lack of usability:** A number of issues regarding usability were raised during interviews including user (un)friendliness, confusing interfaces, mismatches between system language/requirements and reality, and user control over interaction elements. Such issues with usability can go beyond being disruptive or annoying, and can significantly impact or halt one's ability to move across borders.

5.2   Implications

The gaps at hand imply that ACROSS can meaningfully contribute to European cross border services by focusing on addressing key gaps in citizen agency, personal data protection and privacy, digital identity, and user-friendliness. Certain technical approaches follow from this, which are further elaborated in D2.5 ("ACROSS Governance framework including service design approach – Initial"). Briefly, these include:

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[15] https://joinup.ec.europa.eu/collection/imaps-interoperability-maturity-assessment-public-service

- Approaching ACROSS as an experiment in **radical decentralisation of personal data storage and data management at a supranational (EU) level.**

- Approaching **ACROSS as a centralised workflow**, or 'checklist' that contains timelines, order of processes, and (inter)dependencies for specific cross-border use cases, **but does not store personal data**. Instead, this approach would include a relationship between a (central) platform and a (decentral) wallet that makes use of attribute-based credentials or another method of granular data management. In this approach, clear standards for services included on the ACROSS platform would be based upon commonly held values by ACROSS partners, GDPR and other EU guidelines, and would be supported and verified through co-creation with citizens.

6 Conclusion

6.1 General findings

In task 2.3, we have created an inventory of existing cross-border services and analysed which services were missing. This was done through desk research and gap analysis. From these two methods, we concluded that there are two types of gaps: the machine-to-machine gap and the machine-to-user gap. The main machine-to-user gap lies with the level of control the citizens have when they request a cross-border service and the corresponding data they need to collect and provide. Currently, the interviewed citizens do not feel in control while moving ACROSS EU borders. They must follow rules and protocols of different countries and service providers which all ask for slightly different content. It becomes hard to keep track of the status of the processes and the data the citizens have shared and who they have shared it with. The lack of citizen control can be split into four aspects: (de)centralization, data privacy, exclusion of people at the margins, and usability and technical completeness. To create more citizen control, all of these four aspects need to be addressed.

This also has technical implications: to make sure the user has a certain level of control over the cross-border process and their data, they need to have access to a platform, authentication method, and/or a protocol that gives them this control. The machine-to-machine gap concerns the lacking technical infrastructure that would allow for the citizen to have control over their process. To make the switch to user-friendly digital cross-border services that offer the complete set of services someone might need, an effective technical infrastructure needs to be built. This technical infrastructure and the governance of the platform is a subject of ACROSS's research over the next two years.

6.2 Next steps

It is vital that the proposed users believe in the potential of the ACROSS platform, as they would be the ones using it. We want to avoid a technology-first approach, and instead focus on building a platform that offers a solution to the user's problems.

This report has presented the initial gap analysis, which informs the future direction of ACROSS. In the upcoming months, the ACROSS consortium will facilitate co-creation wherein projected end-users will be consulted regarding our gap analysis and contribute to defining our proposed direction towards addressing gaps. In this way, citizens and other stakeholders will have the opportunity to help shape the proposed ACROSS platform. This will be documented in deliverable 2.4 ("Gap analysis of cross-border services - Final").

6.3   Feasibility, limitations, and focus

As shown in this deliverable, the projected end-users have certain desires, needs, and visions when it comes to the imagined ACROSS platform.

However, ACROSS faces certain feasibility constraints that limit the potential of the platform. These include: budgetary and time constraints; the willingness of governments and external services to collaborate towards integration into a common platform; the differences in cultures and languages between the various EU states; the limited scope of ACROSS to specific use case scenarios and countries; and the existing services that have received significant investments from the involved governments and will therefore not be abandoned or replaced. We thus have to carefully make decisions that can limit the scope of ACROSS (avoid trying to solve everything) and allow us to focus on specific use cases and issues to address. A benefit of these constraints is that they require us to turn our attention to addressing certain fundamental gaps: by developing more complete workflows and user journeys for moving ACROSS borders, and by exploring better technical routes for sharing personal data and managing digital identity.

6.4   Relations to other work packages and deliverables

As mentioned in the introduction, this report has presented the initial version of the gap analysis, as described under T2.2. The final version will be delivered in M18 and will be applied to the specific needs of ACROSS pilots. This deliverable included an analysis of the requirements needed to deploy interoperable, cross-border and user-centric public services, based on desk research and the user journey research from T2.1. As such, task T2.1 forms the basis for this report, and task T2.3 will build on the knowledge gathered here. Moreover, there is a strong link to D6.1 ("Use Case Scenarios and Roadmap"), which describes the initial use case research done by the pilot partners. D6.1 was a starting point for this deliverable, as it established an overview of the situation per pilot country.

7 Appendix 1: Inventory of Services

7.1 List of existing German services

Domain	Name	Will the services be available to residents, non-residents or both?	Is the service currently available?	Stakeholders involved for the provision of the service
Working	Information about working in Germany	Both	Already for both	Federal Ministry for Economic Affairs and Energy (BMWi), Division for Social Media, Public Relations, Scharnhorststr. 34-37, 10115 Berlin
Working	Information about working in Germany	Both	Already for both	The Federal Foreign Office, Auswärtiges Amt, Internetredaktion, Werderscher Markt 1, 10117 Berlin (auswaertiges-amt.de)
Working	Recognition of qualifications	Both	Already for both	German Ministry of Education and Research (BMBF); BIBB (Bundesinstitut für Berufsbildung)
Working	Recognition of qualifications	Both	Already for both	Federal Ministry for Economic Affairs and Energy (BMWi)
Working	Recognition of qualifications	-	-	Association of German Chambers of Industry and Commerce (DIHK); German Ministry of Education and Research (BMBF)
Working	Look for a job and apply	Both	Already for both	Federal Ministry for Economic Affairs and Energy (BMWi), Division for Social Media, Public Relations, Scharnhorststr. 34-37, 10115 Berlinn
Working	Look for a job and apply	Both	Already for both	Federal Employment Agency
Working	Look for a job and apply	Both	Already for both	European Commission, but also private stakeholders
Working	Looking for housing			Several private companies
Both	Registration	Residents	Expected within 2022 for residents	Different public stakeholder & states
Both	Tax identification number	Residents	Expected within 2022 for residents	Federal Central Tax Office (BZSt)
Both	Health insurance	Both	Already for both	Several private companies that offer statutory health insurance system or a private health insurance (If you are an EU citizen, you are covered by your European Health Insurance Card (EHIC) for temporary stays. Once you register in Germany, you will need to take out health insurance.)
Both	Opening a bank account			Several private companies
Both	Information for EU citizens (make-it-in-germany.com)			
Studying	Information about study opportunities	Both	Yes	Information portals like German Academic Exchange Service (DAAD), Erasmus; Private/public universities in DE
Studying	Send application(s) to universities	Both	Yes	Private/public universities in DE
Studying	Find Scholarships	Residents	No	German Academic Exchange Service (DAAD)
Studying	Enrollment	Both	Yes	Private/public universities in DE
Studying	Find accommodation	Both	Yes	Studierendenwerk (student administration)
Studying	Recognition of courses	Both	Yes	Private/public universities in DE

7.2   List of existing Greek services

Domain	Name	Will the services be available to residents, non-residents or both?	Is the service currently available?	Stakeholders involved for the provision of the service
Studying	Academic ID	Both	Already for residents	GRNET, Ministry for Education, Ministry for Digital Governance, universities
Studying	Registration / renewal registration in General and Vocational High School	Residents	Already for residents	Ministry of Education
Both	Electronic payment (e-Payment)	Both	Already for residents	Ministry for Digital Governance
Both	Degree recognition	Both	Already for residents	Hellenic National Recognition and Information Center
Both	Notification of entry in the SCHENGEN information system	Residents	Already for residents	Hellenic Police
Working	Unseizable account	Residents		Independent Authority of Public Revenue (AADE)
Both	Search for medicine	Residents		National Organization for Healthcare Services Provision - EOPYY
Both	Copy of case file	Residents		Ministry of Justice
Both	Detailed vehicle status	Residents		Independent Authority of Public Revenue (AADE)
Studying	Results of national exams	Residents		Ministry of Education
Studying	Results of certification exams of Greek language proficiency of the Greek Language Center	Both		Center for the Greek Language
Both	Insurance awareness of natural / legal persons (eEFKA)	Residents		Unified Social Security Fund (e-EFKA)
Both	Insurance capacity	Residents		Unified Social Security Fund (e-EFKA)
Working	Insurance CV	Residents		Unified Social Security Fund (e-EFKA)
Studying	Internship (ATLAS)	Residents		GRNET
Both	Individual insurance details	Residents		Unified Social Security Fund (e-EFKA)
Working	Individual employee insurance account	Residents		Unified Social Security Fund (e-EFKA)
Working	Certificates of contributions (eEFKA)	Residents		Unified Social Security Fund (e-EFKA)
Working	Annual pension information note (eEFKA)	Residents		Unified Social Security Fund (e-EFKA)
Both	Availability of appointments with EOPYY doctors	Residents		National Organization for Healthcare Services Provision - EOPYY
Both	Online appointments at Primary Health Care Units	Residents		e-Government Centre for Social Security (IDIKA)

Both	Income tax return VAT (E1-E2-E3)	Residents		Independent Authority of Public Revenue (AADE)
Both	Request to Disability Certification Center (KEPA)	Residents		Unified Social Security Fund (e-EFKA)
Both	Free ATH.ENA card fare for the unemployed and people with disabilities	Residents		Athens Mass Transit System
Studying	Registration of freshmen	Residents		Ministry of Education
Studying	Registration in Public IEK	Residents		Ministry of Education
Both	Registration in the Health Insurance File (FAW)	Residents		National Organization for Healthcare Services Provision - EOPYY
Both	Registration with a family doctor	Residents		Ministry for Health
Working	Validity of proof of tax awareness	Residents		Independent Authority of Public Revenue (AADE)
Both	Health Insurance File	Residents		National Organization for Healthcare Services Provision - EOPYY
Working	Proof of tax awareness	Residents		Independent Authority of Public Revenue (AADE)
Both	National Registry of Blood Donors	Residents		National Blood Donation Center (EKEA)
Working	Income tax return clearance update	Residents		Independent Authority of Public Revenue (AADE)
Both	Issuance of authorization	Residents		Ministry for Digital Governance
Studying	Books - Eudoxus			Ministry of Education
Studying	Certificate of registration of foreigners for study purposes	Non residents		Hellenic Police
Both	Certificate of registration of family members of a citizen of an EU Member State			Hellenic Police
Both	Certificate of registration of citizens of an EU Member State for other reasons			Hellenic Police
Both	Certificate of permanent residence of a citizen of an EU Member State			Hellenic Police
Working	Copy of Criminal Record			Ministry of Justice
Working	Electronic prescriptions	Residents		National Organization for Healthcare Services Provision - EOPYY
Both	Issuance of a solemn declaration	Residents		Ministry for Digital Governance
Both	Medical specialty for the issuance of an opinion per provision of EKPY	Residents		National Organization for Healthcare Services Provision - EOPYY
Working	Payments of non-employees	Residents		Unified Social Security Fund (e-EFKA)
Working	State Certificate of Language Proficiency	Residents		Ministry of Education
Studying	Apprenticeship in Public Vocational Schools	Residents		Ministry of Education
Studying	Transfers	Residents		Ministry of Education

Studying	Sibling transfer	Residents		Ministry ofEducation
Studying	Exceptional transfers	Residents		Ministry of Education
Studying	Michanografiko - e-Registration of the options for admission to the Higher and Higher Education Institutions.	Residents		Ministry of Education
Studying	Michanografiko - e-Registration of the options for admission to the Higher and Higher Education Institutions (foreign candidates)	Residents		Ministry of Education
Studying	Michanografiko - e-Registration of the options for admission to the Higher and Higher Education Institutions (Candidates with serious diseases)			Ministry of Education
Studying	Michanografiko - e-Registration of the options for admission to the Higher and Higher Education Institutions (Greek candidates abroad)			Ministry of Education
Both	Certification at the Disability Certification Center			Unified Social Security Fund (e-EFKA)
Both	Contracted providers with EOPYY			National Organization for Healthcare Services Provision - EOPYY
Both	Individual Electronic Health File (EIFY) for citizens	Both		e-Government Centre for Social Security (IDIKA)
Both	Road Tax from 2013 until today	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
Working	Special maternity leave protection	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Public benefit programs	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Application submission for unemployed	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	CV submission for unemployed	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Vacancies for unemployed	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Calculation of points (nationwide exams)	Residents	Already for residents	Ministry of Education
	Scholarships IKY	Residents	Already for residents	Ministry of Education
	Individual candidate file	Residents	Already for residents	Supreme Council for Civil Personnel Selection (ASEP)
	Application submission to Public Administration vacancies	Residents	Already for residents	Supreme Council for Civil Personnel Selection (ASEP)
	Birth certificate	Residents	Already for residents	Ministry of the Interior
	Certificate of marital status	Residents	Already for residents	Ministry of the Interior

	European Health Insurance Card	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Court certificates	Residents	Already for residents	Ministry of Justice
	Intangible prescription	Residents	Already for residents	e-Government Centre for Social Security (IDIKA)
	High Cost Drugs Receiving Service	Residents	Already for residents	National Organization for Healthcare Services Provision - EOPYY
	IEK graduation certification exams	Residents	Already for residents	National Organization for Certification of Qualifications & Vocational Guidance
	Online registration in Taxisnet	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Validity check of gov.gr documents	Residents	Already for residents	Ministry for Digital Governance
	Citizen box	Residents	Already for residents	Ministry for Digital Governance
	Citizens' Digital Academy	Residents	Already for residents	Ministry for Digital Governance
	Enrollment in Kindergarten	Residents	Already for residents	Ministry of Education
	Key number assignment with digital appointment	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Certificate of certification of IEK graduates	Residents	Already for residents	National Organization for Certification of Qualifications & Vocational Guidance
	Scholarship certificates	Residents	Already for residents	Ministry of Finance
	Certificate of citizenship	Residents	Already for residents	Ministry of the Interior
	Enrollment in a Model / Experimental School	Residents	Already for residents	Institute of Educational Policy (IEP)
	Organ / tissue donation statement	Residents	Already for residents	HELLENIC TRANSPLANT ORGANIZATION (EOM)
	Enrollment in a daycare center of the Labor Employment Organization (OAED)	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Enrollment in a Vocational School (EPAS) of OAED	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Vocational School Instructors (EPAS) Apprenticeship of OAED	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Teleconferencing service from the Citizens' Service Center (KEP)	Residents	Already for residents	Ministry for Digital Governance
	Enrollment in High School	Residents	Already for residents	Ministry of Education
	I move electrically	Residents	Already for residents	Ministry of Environment and Energy
	Electronic appointment request (eEFKA)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Application for employment in OAED Nursery Schools	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE

	Traffic card within the ring of Athens	Residents	Already for residents	Ministry of Environment and Energy
	Inventory certificate (eEFKA)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Certificate of previous service (eEFKA)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Date of renewal of international protection applicant cards	Residents	Already for residents	Ministry of Migration and Asylum
	Self-registration application	Residents	Already for residents	Ministry of Migration and Asylum
	Request to change contact details	Residents	Already for residents	Ministry of Migration and Asylum
	Request for change of identity	Residents	Already for residents	Ministry of Migration and Asylum
	Application for postponement / acceleration of an interview	Residents	Already for residents	Ministry of Migration and Asylum
	Certificate of request status	Residents	Already for residents	Ministry of Migration and Asylum
	Folder separation application	Residents	Already for residents	Ministry of Migration and Asylum
	Application for submission of documents	Residents	Already for residents	Ministry of Migration and Asylum
	Application for copies	Residents	Already for residents	Ministry of Migration and Asylum
	Application for legal aid	Residents	Already for residents	Ministry of Migration and Asylum
	Appointment for service / renewal of residence permit	Residents	Already for residents	Ministry of Migration and Asylum
	Birth certificate	Residents	Already for residents	Ministry of the Interior
	Marriage certificate	Residents	Already for residents	Ministry of the Interior
	Certificate of cohabitation agreement	Residents	Already for residents	Ministry of the Interior
	Submission of energy inspection reports	Residents	Already for residents	Ministry of Environment and Energy
	Copy of university degree for conscription or other use	Residents	Already for residents	Ministry of Education
	Certificate of university studies	Residents	Already for residents	Ministry of Education
	Certificate of detailed university score	Residents	Already for residents	Ministry of Education
	Copy of ASPAITE degree for conscription or other use	Residents	Already for residents	Ministry of Education
	Certificate of student status (ASPAITE)	Residents	Already for residents	Ministry of Education
	Certificate of detailed score (ASPAITE)	Residents	Already for residents	Ministry of Education
	Certificate of study at the Merchant Marine Academy	Residents	Already for residents	Ministry of Education
	Graduation Certificate from Merchant Marine	Residents	Already for residents	Ministry of Education

	Academy (AEN)			
	Copy of study certificate (IEK, KEK, Apprenticeship, TEE A 'Cycle, TEE B' Cycle)	Residents	Already for residents	Ministry of Education
	Certificate of previous service for substitute teachers	Residents	Already for residents	Ministry of Education
	Certificate of service status and changes for teachers	Residents	Already for residents	Ministry of Education
	Certificate of hospitalization or examination in outpatient adult clinics	Residents	Already for residents	Ministry for Health
	Juvenile care certificate	Residents	Already for residents	Ministry for Health
	Certificate of non-prosecution of fugitives	Residents	Already for residents	Ministry of Justice
	Certificate of non-bankruptcy	Residents	Already for residents	Ministry of Justice
	Certificate of non-filing for bankruptcy	Residents	Already for residents	Ministry of Justice
	Certificate of non-liquidation (SA)	Residents	Already for residents	Ministry of Justice
	Certificate of non-filing of an application for liquidation (SA)	Residents	Already for residents	Ministry of Justice
	Certificate of non-liquidation (OE, EU, LTD)	Residents	Already for residents	Ministry of Justice
	Certificate of non-filing of an application for liquidation (OE, EE, LTD)	Residents	Already for residents	Ministry of Justice
	Certificate of non-compulsory management	Residents	Already for residents	Ministry of Justice
	Certificate of non-filing of an application for compulsory management	Residents	Already for residents	Ministry of Justice
	Certificate of permanent residence of a citizen of an EU Member State	Residents	Already for residents	Ministry of the Interior
	Postponement of enlistment due to studies in a higher / higher school for main / postgraduate studies or in a post-secondary education center	Residents	Already for residents	Ministry of National Defence
	Postponement of enlistment due to studies in a secondary school / evening high school / post-secondary year / IEK / apprenticeship class of EPAL or SEK	Residents	Already for residents	Ministry of National Defence
	Postponement of enlistment due to studies in high school / second chance school / high school of special education and training	Residents	Already for residents	Ministry of National Defence

	Postponement of conscription for prospective students of higher / higher schools	Residents	Already for residents	Ministry of National Defence
	Teleconferencing service from the Consular Authority of the Ministry of Foreign Affairs	Residents	Already for residents	Ministry of Foreign Affairs
	Certificate of compatibility of a degree in nursing, physiotherapy, obstetrics, visitors / three health of the European Union	Residents	Already for residents	Ministry of Infrastructure and Transportation
	Certificate of compatibility of European Union medical / dental degree	Residents	Already for residents	Regional and Local Government
	Certificate of time as a doctor / dentist	Residents	Already for residents	Regional and Local Government
	Certificate of professional status of doctor / dentist	Residents	Already for residents	Regional and Local Government
	Certificate of professional status of nurse, physiotherapist, midwife / obstetrician, visitors / three health	Residents	Already for residents	Regional and Local Government
	Renewal of internship for pharmacy students	Residents	Already for residents	Regional and Local Government
	Certificate of compatibility of the European Union medical / dental specialty	Residents	Already for residents	Regional and Local Government
	Copy of driving license due to theft / loss	Residents	Already for residents	Ministry of Infrastructure and Transportation
	Certificate of permanent resident abroad	Residents	Already for residents	Ministry of Foreign Affairs
	Declaration of a resident abroad as a beneficiary of a pension	Residents	Already for residents	Ministry of Foreign Affairs
	Parental allowance for student transfer	Residents	Already for residents	Regional and Local Government
	Registration of theft of a passenger / two-wheeled private car of a natural person	Residents	Already for residents	Regional and Local Government
	Permanent deletion of a passenger / two-wheeled car of a natural person	Residents	Already for residents	Regional and Local Government
	Permanent deletion of a passenger / two-wheeled IX vehicle due to re-registration in an EU country	Residents	Already for residents	Regional and Local Government
	Assignment of Tax Registration Number (TIN) to a natural person	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Assign a key number to a natural person	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Assignment of Tax Registration Number (TIN) and key number to a	Residents	Already for residents	Independent Authority of Public Revenue (AADE)

	natural person			
	Free electric vehicle parking signal	Residents	Already for residents	Ministry of Environment and Energy
	Supplementary maternity benefits	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Opening a family portion due to marriage	Residents	Already for residents	Ministry of the Interior
	Change of data in the Social Security Registration Number (AMKA)	Residents	Already for residents	e-Government Centre for Social Security (IDIKA)
	Suspension of enlistment due to studies in a higher / higher school for main / postgraduate / doctoral studies	Residents	Already for residents	Ministry of National Defence
	Copy of license of private vehicles (IX)	Residents	Already for residents	Regional and Local Government
	Possession of a vehicle	Residents	Already for residents	Regional and Local Government
	Declaration of immobility of a private vehicle (IX)	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Removal of immovable vehicle for private use (IX)	Residents	Already for residents	Independent Authority of Public Revenue (AADE)
	Sickness benefit (eEFKA)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Diploma of Patent	Both	Already for both	Industrial Property Organisation
	Modification diploma			Industrial Property Organisation
	Certificate patent utility model	Both	Already for both	Industrial Property Organisation
	Deposit translation modified European patent (B1)	Both	Already for both	Industrial Property Organisation
	Deposit translation modified European patent (B2)	Both	Already for both	Industrial Property Organisation
	Deposit translation limited or revoked European patent (B3)	Both	Already for both	Industrial Property Organisation
	Translation deposit claims of European patent application	Both	Already for both	Industrial Property Organisation
	Patent certificate	Both	Already for both	Industrial Property Organisation
	Certificate of industrial patent designs	Both	Already for both	Industrial Property Organisation
	Modification patent certificate	Both	Already for both	Industrial Property Organisation
	Certificate of translation of a European patent application	Both	Already for both	Industrial Property Organisation
	European patent translation certificate	Both	Already for both	Industrial Property Organisation
	Certificate of translation of a translation of a restricted or revoked European patent	Both	Already for both	Industrial Property Organisation

	Certificate of translation of a translation of a modified European patent	Both	Already for both	Industrial Property Organisation
	Patent Certificate of utility model	Both	Already for both	Industrial Property Organisation
	Patern Certificate of technology transfer contract	Both	Already for both	Industrial Property Organisation
	Patent Technology transfer contract	Both	Already for both	Industrial Property Organisation
	Patent Semiconductor product topography registration certificate	Residents	Already for residents	Industrial Property Organisation
	Patent Preliminary research	Residents	Already for residents	Industrial Property Organisation
	Priority certificate for obtaining a patent in more than 1 Member State of the Paris Convention.	Both	Already for both	Industrial Property Organisation
	Patent Industrial designs	Residents	Already for residents	Industrial Property Organisation
	Patent change	Both	Already for both	Industrial Property Organisation
	Modification patent change	Both	Already for both	Industrial Property Organisation
	Change filing a translation of a European application claim by patenting your name, legal form or registered office	Both	Already for both	Industrial Property Organisation
	Change of European patent translation filing (B1)	Both	Already for both	Industrial Property Organisation
	Change of translation of a limited or revoked European patent (B3)	Both	Already for both	Industrial Property Organisation
	Change of translation of a modified European patent translation (B2)	Both	Already for both	Industrial Property Organisation
	Modification of a patent utility model certificate	Both	Already for both	Industrial Property Organisation
	National Register of Patents	Both	Already for both	Industrial Property Organisation
	Insurance awareness of certified carrier (eEΦΚΑ)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Insurance awareness of employers of joint ventures / construction projects (eEΦΚΑ)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Inventory and insurance capacity of family members (eEΦΚΑ)	Residents	Already for residents	Unified Social Security Fund (e-EFKA)
	Certificate of vaccination against coronavirus COVID-19	Residents	Already for residents	Ministry for Health
	Statement of loss of a police ID card	Residents	Already for residents	Hellenic Police
	OAED Updating unemployment register data	Both	Already for both	OAED - EMPLOYMENT AGENCY FORCE

	Consulting services from the EURES network	Both	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Reporting an incident of personal data breach by electronic communications providers	Residents	Already for residents	Hellenic Authority for Communication Security and Privacy (ADAE)
	National Communication Register (EMEπ)	Residents	Already for residents	Ministry for Digital Governance
	Reimbursement of travel expenses for kidney patients (neuropathic)	Residents	Already for residents	National Organization for Healthcare Services Provision - EOPYY
	Reimbursement of Thalassaemia travel expenses	Residents	Already for both	National Organization for Healthcare Services Provision - EOPYY
	Integrated vocational training program for unemployed with certification	Residents	Already for residents	OAED - EMPLOYMENT AGENCY FORCE
	Online appointment request at Citizens' Service Center (ΚΕΠ)	Residents	Already for residents	Ministry for Digital Governance
	Digital educational platform for students and teachers (e-me)			Computer Technology Institute & Press
	Live internet broadcasts (DIAVLOS)			GRNET
	Online training portal			Ministry of Education
	HEAL-Link portal			Hellenic Academic Libraries Link
	Electronic reading room			National Library of Greece
	English in Digital School			Computer Technology Institute & Press
	The Primary School in the Digital School			Computer Technology Institute & Press
	Submitting an objection to a tender			Supreme Council for Civil Personnel Selection (ASEP)
	Application for hourly paid trainers (DIEK, SDEK, Second chance schools)			Youth and Lifelong Learning Institute (I.NE.DI.VI.M)
	Municipal awareness			Ministry of the Interior
	Public Passenger (EDX) Car Driving License			Regional and Local Government
	Free trial for Covid-19			Ministry of Health
	Covid-19 coronavirus vaccination			Ministry of Health
	Transplantation of an adult to regain his original popularity			Ministry of the Interior
	Free trial for Covid-19 for teachers and students 16 years and older			Ministry of Health
	Checking the return of a Tax Registration Number to holders of an International Protection Applicant (DAD) Card			Ministry of Migration and Asylum
	Free COVID-19 checks for employees in companies			MInistry of Health

	with more than 20 employees			
	Uninsured vehicles			Independent Authority of Public Revenue (AADE)
	Notification of a separate declaration			Independent Authority of Public Revenue (AADE)
	Interactive textbooks			Computer Technology Institute & Press
	Child allowance			Organisation of Welfare Benefits and Social Solidarity (OPEKA)
	Heating benefit			Independent Authority of Public Revenue (AADE)
	Housing allowance			Organisation of Welfare Benefits and Social Solidarity (OPEKA)
	Public library node			National Library of Greece
	Application for hourly paid IEK teachers			Ministry of Education
	Application for hourly paid teachers IEK - OAED			OAED - EMPLOYMENT AGENCY FORCE
	School support applications (myschool)			Ministry of Education
	Training check management			OAED - EMPLOYMENT AGENCY FORCE
	Collective catalog of Greek libraries			National Library of Greece
	Private family doctor contract			National Organization for Healthcare Services Provision - EOPYY
	Application for education officer (Hypatia)			Ministry of Education
	Issuance of unemployment card			OAED - EMPLOYMENT AGENCY FORCE
	Unemployment benefit application			OAED - EMPLOYMENT AGENCY FORCE
	Declaration of presence of subsidized unemployed			OAED - EMPLOYMENT AGENCY FORCE
	Academic books (Kallipos)			Hellenic Academic Libraries Link
	Unemployment certificate for the provision of medical care			OAED - EMPLOYMENT AGENCY FORCE
	Registration in IEK of OAED			OAED - EMPLOYMENT AGENCY FORCE
	Application for hiring substitute teachers			Ministry of Education
	Unified Integrated Academic Library System (ILSaS)			Hellenic Academic Libraries Link
	Copy of Crime and Incident Book (BAS)			Hellenic Police
	Debt settlement to the tax administration			Independent Authority of Public Revenue (AADE)
	Announcements and procedures for the election of university professors (APELLA)			Ministry of Education

	Fingerprint certificate			Hellenic Police
	ΔΗΛΟΣ 365			GRNET
	Public catalog of the National Library of Greece			National Library of Greece
	Certificate of family allowances for tax purposes			Organisation of Welfare Benefits and Social Solidarity (OPEKA)
	Introduction of tests in LS-ELAKT schools through nationwide exams			Ministry of Finance
	Admission of students to Merchant Marine Academies (AEN)			Ministry of Shipping and Island Policy
	Recruitment of AEN students			Ministry of Shipping and Island Policy
	Issuance / renewal of a foreigner's residence permit under international protection regime			Hellenic Police
	Issuance / renewal of a temporary entry permit in the country for reasons of emergency			Hellenic Police
	Statements of theft / detection of stolen vehicles			Hellenic Police
	Special Travel Document (T.DV) of the 1951 Geneva Convention			Hellenic Police
	Moped license			Hellenic Police
	Weapons license			Hellenic Police
	Electronic debtor card			Unified Social Security Fund (e-EFKA)
	Passage of permanent residents by tolls			Ministry of Infrastructure and Transportation
	Possession of a hunting weapon			Hellenic Police
	Student housing allowance			Ministry of Education
	Primary and Secondary Education Personnel Management (OPSYD)			Ministry of Education
	Search for accountants			Independent Authority of Public Revenue (AADE)
	Selection of DIEK executives			Ministry of Education
	Book purchase checks			OAED - EMPLOYMENT AGENCY FORCE
	Spectacle checks			OAED - EMPLOYMENT AGENCY FORCE
	Photo tree (national accumulator of educational content)			Ministry of Education
	User e-yliko photo tree (pan-Hellenic repository of digital teacher material)			Computer Technology Institute & Press
	Edusoft photo tree (pan-Hellenic repository of educational software)			Computer Technology Institute & Press
	I-create photo tree (pan-			Computer Technology

	Hellenic repository of digital student creations)			Institute & Press
	LOR photo tree (pan-Hellenic repository of learning objects)			Computer Technology Institute & Press
	Photo tree OEP (pan-Hellenic repository of Open Educational Practices)			Computer Technology Institute & Press
	Photo Tree Video (Panhellenic repository of educational videos)			Computer Technology Institute & Press
	Photo Tree Culture (thematic accumulator of cultural educational content)			Computer Technology Institute & Press
	Atlas of health			National Organization for Healthcare Services Provision - EOPYY
	Digital educational aids for national exams			Computer Technology Institute & Press
	Digital libraries			Ministry of Education
	AMELib (Accessible Multi-modal Electronic Library) digital library			Hellenic Academic Libraries Link
	Digital library of newspapers and magazines			National Library of Greece
	Certificate of residence for special use			Independent Authority of Public Revenue (AADE)
	Statement of employers for the treatment of Covid-19			Ministry of Labour and Social Affairs
	Employee statement for the treatment of Covid-19			Ministry of Labour and Social Affairs
	Personalized employee information (Instrument)			Ministry of Labour and Social Affairs
	Submitting a report to the Ombudsman			The Greek Ombudsman
	Register of Greek and Foreign Non-Governmental Organizations (NGOs)			Ministry of Migration and Asylum
	Application for educational issues			Ministry of Education
	Educational Television			Ministry of Education
	Applications for recruitment in Mobile Health Teams (KOMY) of EODY			Hellenic National Public Health Organization (EODY)
	Temporary driving license			Ministry of Infrastructure and Transportation
	Accumulator of cultural content			National Documentation Center
	Accumulator of scientific content			National Documentation Center
	Digital Library of Science, Technology and Culture			National Documentation Center
	Public library catalog			National Documentation Center
	Electronic publications			National Documentation

	ePublishing (journals, conference proceedings, monographs)			Center
	METIDA educational content platform			National Documentation Center
	National archive of doctoral dissertations			National Documentation Center
	National collective catalog of scientific journals			National Documentation Center
	Register of the Institute of Educational Policy (IEP)			Institute of Educational Policy (IEP)
	Free training in digital marketing for the unemployed			OAED - EMPLOYMENT AGENCY FORCE
	Archaeological site tickets			Hellenic Organization of Cultural Resources Development (H.O.C.RE.D.)
	Financial aid (voucher) for enrollment in a kindergarten			Hellenic Agency for Local Development & Local Government S.A.
	Library of the Aristotle University of Thessaloniki (AUTH)			Aristotle University of Thessaloniki
	Scientific works of Aristotle University of Thessaloniki (AUTH)			Aristotle University of Thessaloniki
	Financial support (voucher) for families with preschool children			Hellenic Agency for Local Development & Local Government S.A.
	Digital library of the Hellenic Statistical Authority			Hellenic Statistical Authority
	Certificate of time of subsidized unemployment			OAED - EMPLOYMENT AGENCY FORCE
	Relocation of spouses when one is already a citizen			Ministry of the Interior
	Certificate of locality			Ministry of the Interior
	Certificate of registration in the male registers			Ministry of the Interior
	Certificate of financial support for people with severe disabilities			Organisation of Welfare Benefits and Social Solidarity (OPEKA)
	Certificate of financial support for deafness			Organisation of Welfare Benefits and Social Solidarity (OPEKA)
	Registration in the special voter lists abroad			Ministry of the Interior
	Teleconferencing service by the Labor Employment Organization (OAED)			
	Counseling services for registered unemployed (OAED)			OAED - EMPLOYMENT AGENCY FORCE
	Certificate of extension of residence permit for third country nationals			Ministry of Migration and Asylum

7.3   List of existing Latvian services

Domain	Name	Will the services be available to residents, non-residents or both?	Is the service currently available?	Stakeholders involved for the provision of the service
Studying	Consultation of official statistics	Both	Already for both	CSP (Central Statistical Bureau)
Studying	Certification of psychologists	Residents	Already for residents	State Education Quality Service
Both	Riga Stradins University higher education: graduated electronic log	Both	Already for both	Riga Stradins University
Both	Issuance of a certificate of recognition of professional qualifications to medical practitioners for work in foreign countries	Residents	Already for residents	Health Inspectorate
Studying	Application (complaint) to the State Education Quality Service	Both	Already for both	State Education Quality Service
Both	Application to an institution	Both	Already for both	State Regional Dvelopment Agency
Both	Academic recognition in Latvia of foreign education credentials / Professional recognition of foreign qualifications (2 similar services by the same institution and same application procedure)	Both	Already for both	Academic Information Centre (AIC)
Working	Applying for the residence permit with the rights to work	Non residents	Already for both	Office of Citizenship and Migration Affairs (OCMA)
Working	Valid health insurance policy	Both	Already for both	Private health insurance companies
Working	European Professional Card - EPC	Both	Already for both	Ministry of Economics, Health Inspectorate